



Fluid Systems: The Oil & Gas Insider's Guide to Operational Excellence

Customised Solutions

Swagelok®





The right part is only the start to solving a problem. Swagelok knows real solutions require a real understanding of what a customer needs.

Our Customer

Australia's **LARGEST** natural gas infrastructure business

APA's gas transmission pipelines span every state and territory in mainland Australia, as well as gas distribution networks in four states.

Has direct operational control over **\$19B** of energy assets and investments



Delivers **50%** of nation's gas usage

Provides **Asset Management Services**



Energy Assets



Investments



Third Parties

1,600 employees

Deliver the following:

- commercial
- regulatory
- government
- stakeholder-related functions
- day-to-day operations
- maintenance

LONG-TERM AGREEMENT

to operate Australian Gas Networks'

gas transmission



distribution assets





The Challenge

At its Eagle Farm workshop in Brisbane, APA manufactures steel pipework for industrial metering sets and fabricates infrastructure for expanding pipeline networks. Hydrostatic testing units are used to validate the integrity of all materials, componentry, and welding. For APA, it is important to be able to **quickly and easily change the pressure class of the unit** in order to test different classifications of pipe.

It was determined that an existing hydrostatic testing unit did not meet APA's strict safety protocols, having insufficient overpressure protection and an imprecise safe operating procedure (SOP). Other design flaws also made the unit difficult to use.

After searching for a new model, but finding nothing on the market to meet its requirements, APA turned to Swagelok Australia for suggestions on how to improve its problematic test unit.

“ I've been familiar with Swagelok from my many years in the oil and gas industry. It's difficult to find other suppliers with that level of expertise and willingness to jump in and learn about what we actually require on the job. ”

“ A lot of companies sell off-the-shelf but don't really meet our requirements. I came to Swagelok with some initial ideas, and they helped us determine our pressure-relief needs and the interchangeability of the valves that were needed on the unit. It was a very easy process to go through. ”

—Marty Abell is Supervisor of Fabrication Services at APA's Eagle Farm workshop where he heads a team of live line welders and pipe fabricators.



The Solution



ENHANCEMENTS

Other functional elements of the design were also taken into account with the goal of helping APA test more accurately and reliably. A risk assessment was also conducted as part of the process, and a new SOP was produced to allow safe operation of the unit.



Better ergonomic operation

Unit now sits waist-high, making it easier to use



Less complexity

Simplified tube connections running in and out; no hoses to trip over



Redistribution of weight to trolley

Greater stability



Ease of maintenance

Components at the bottom of the trolley can be quickly accessed and serviced, saving APA the trouble of sourcing special repairs; a majority of Swagelok components are APA store-stock

“ Once the unit was developed, we performed test runs having labelled the panel with a schematic—we took what that procedure would look like, verified what was important to the operator, and documented a series of instructions against the real view of the panel. ”

“ What you generally get as operating instructions is a Word document with step one, step two, step three, etc., and having to read and interpret that against the panel or equipment view can be difficult. ”

“ For APA, we prepared something new that actually references the real view of the panel from our CAD drawing of the hydrostatic test unit, so now it's easy for operators to look and quickly understand that SOP, which has also made the training side of things much easier for our customer. ”

— Travis Faulkner is a Queensland University of Technology graduate and has been with Swagelok Eastern Australia since 2006.



The Outcome



APA now has a hydrostatic testing unit that is AS2885.1 compliant that can safely test to a range of higher pressures without time-consuming conversions. This greatly reduces the risk of over or underpressure testing assemblies and helps the Eagle Farm workshop operate more efficiently each day.



Having made the workplace safer, Swagelok's test unit solution was also nominated for APA's HSE Excellence Awards. The awards recognise instances of exceptional health, safety, and environmental prowess from all across the company's many business units. For APA Group, there is nothing more important than implementing and maintaining strategies and programs that prevent and/or reduce the consequences of harm to its workforce of more than 1,600 individuals.



Currently, APA is considering similar improvements to other hydrostatic testing units across its fabrication facilities. Swagelok has also developed pneumatic test cases that allow APA's technicians to pressure-test small sections of pipe in the field, saving considerable time and cost where workshop services can be avoided.



For Marty Abell, working with Swagelok also means simplicity and an appreciation for the small things that make a big difference:

“We’ve experienced record growth in recent years, and I have to take my hat off to Travis. With all the changes, our part numbering systems have become difficult, but he’s been proactive in helping us align our material numbers with Swagelok’s part numbers. They’re always in line with what we need and take the time to do the research, which makes my job much easier and easier for my guys too.”

“And in a lot of cases, rather than getting a bill of materials for 14 individual components, there’s a single part number that’s standard detail for a particular piping metric, so that item can just be ordered from Swagelok, and it comes assembled.”

“Swagelok has even put up identification charts with our part numbers and their part numbers, so my guys can physically see what they need, identify it, and they’ve got the numbers straight away.”



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Swagelok Australia is engineered to keep you up and running. We work harder because the world's toughest industry demands only the best. If the fluid systems in your oil and gas environment are becoming a source of cost and concern, we can help with the right products, the right recommendations, and the right people at the right time.

Give yourself an advantage—you can be sure it's done right with Swagelok.

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